

# MILK MATTERS

FOR YOUR CHILD'S HEALTH!



NATIONAL INSTITUTES OF HEALTH  
National Institute of Child Health and Human Development



Dear Parent,

Your child's bones are growing every day,  
and growing bones need lots of calcium.  
Milk is an excellent source of calcium.

We hope that this book will help you  
learn more about milk and  
calcium so you can help your  
children grow into strong,  
healthy adults.

Sincerely yours,



Duane Alexander, MD

Director, National Institute  
of Child Health and  
Human Development

# MILK MATTERS

FOR YOUR CHILD'S HEALTH!

That's because milk and dairy foods have lots of calcium and other nutrients that make bones grow strong and healthy. Children and teenagers especially need the calcium and other bone building materials in milk because their bones are growing more than at any other time in their lives.

Studies show that most kids don't get the calcium they need. In fact, more than half of teenage boys and girls don't get the recommended amount of calcium.



# Why Do Kids Need Calcium?

Calcium makes bones strong. Bones may seem hard and lifeless. But they are actually growing and alive. Since bones grow most during the childhood and teenage years, these are especially important times to help make them strong and healthy.

By eating and drinking lots of foods with calcium, children and teens can help build their “bone banks” to store calcium for later in life. As adults, this stored calcium can help keep bones strong. It also may help reduce the risk of osteoporosis, a condition where bones become fragile and can break easily later in life. That means it’s especially important for children to get enough calcium while they are young.



Bones can also become stronger through weight-bearing exercises. Some examples of weight-bearing exercises are running, dancing, tumbling, and jumping. Swimming is an example of an exercise that is not weight-bearing.

Calcium also keeps teeth and gums healthy throughout life. Even before baby teeth and adult teeth come in, they need calcium to develop properly. And after teeth come in, they remain strong and resist tooth decay by taking in more calcium. Calcium is also important throughout life for preventing gum disease. So be sure to get calcium and drink milk your whole life long.





## HOW MUCH CALCIUM Does My Child Need?

AGE		CALCIUM needed each day (in milligrams)
	Birth to 6 months	210 mg
	6-12 months	270 mg
	1-3 years	500 mg
	4-8 years	800 mg
	9-18 years	1,300 mg



Source: Dietary Reference Intakes for Calcium, National Academy of Sciences, 1997

# W H E R E I S . . .

FOOD	SERVING SIZE	CALCIUM in Milligrams*	% Daily Value on Food Label*
Yogurt, plain, fat-free	1 cup	400	40%
American cheese	2 ounces	348	35%
Ricotta cheese, part skim	1/2 cup	337	35%
Yogurt, fruit	1 cup	315	30%
Cheddar cheese	1-1/2 ounces	306	30%
Milk (fat-free, low-fat or whole)	1 cup	300	30%
Orange juice with added calcium	1 cup	300	30%
Tofu (with calcium-sulfate)	1/2 cup	260	25%
Calcium-fortified soy milk	1 cup	250- 300	25-30%

# . . . T H E C A L C I U M ?



FOOD	SERVING SIZE	CALCIUM in Milligrams*	% Daily Value on Food Label*
Cheese pizza	1 slice	220	20%
Macaroni & cheese	1/2 cup	180	20%
Soybeans, cooked	1/2 cup	131	15%
Broccoli, cooked or fresh	1 cup	118	10%
Frozen yogurt	1/2 cup	105	10%
Almonds, dry roasted	1/4 cup	100	10%
Bok choy	1/2 cup	100	10%
Tortilla, corn	3 tortillas	80	8%
Bread	1 slice	40	4%

\* Calcium content varies depending on the ingredients for many foods. % Daily Values have been rounded according to Food and Drug Administration guidelines.

Sources for Calcium Food Table : American Dietetic Association's Complete Food and Nutrition Guide, 1996; USDA's Agricultural Handbook; National Dairy Council; Bowes and Church's Food Values of Portions Commonly Used, 1998; Food and Drug Administration, Calcium Education Program Leader's Guide.

# Where Can Kids Get Calcium?

Milk and other dairy foods, such as cheese and yogurt, are excellent sources of calcium. One 8-ounce glass of milk has about 300 milligrams (mg) of calcium. Just a few glasses can go a long way toward giving kids the calcium they need each day.

Milk also has other vitamins and minerals that are good for bones and teeth. One especially important nutrient is vitamin D, which helps the body to absorb more calcium.

Other sources of calcium are dark green, leafy vegetables, such as kale, and foods like broccoli, soybeans, tofu made with calcium, orange juice with calcium added, and other calcium-fortified foods.





# IDEAS for high-calcium meals & snacks



## BREAKFAST



Pour milk over your breakfast cereal

Have a cup of yogurt

Drink a glass of calcium-fortified orange juice

Add low-fat milk instead of water to oatmeal and hot cereal

## LUNCH

Add milk instead of water to tomato soup

Add cheese to a sandwich

Have a glass of milk instead of a soda

Make mini-pizzas or macaroni and cheese

## SNACK

Try flavored milk like chocolate or strawberry

Have a frozen yogurt

Try some pudding made with milk

Make a “smoothie” with fruit, ice, and milk

Dip fruits and vegetables into yogurt

## DINNER

Make a salad with dark green, leafy vegetables

Serve broccoli or cooked, dry beans as a side dish

Top salads, soups, and stews with  
low-fat shredded cheese

Add tofu made with calcium to stir fry and other dishes





# Food Nutrition Labels

Reading the food label can be an easy way to find out how much calcium is in one serving of food. For example, one 8-ounce serving of milk has 300 mg of calcium, or 30% of the Daily Value (DV). By looking on the food label, you can see how much calcium a food serving gives toward the total amount needed for the day.

Here is an example of a food nutrition label. The label shows that this brand of macaroni and cheese has 20% of the Daily Value for calcium in each serving (there are two servings of macaroni and cheese in this box).

100% of the Daily Value is equal to 1,000 mg of calcium a day. However, children ages 9-18 need **extra** calcium to keep their bones growing strong and healthy. They should be getting 1,300 mg of calcium a day.

Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
Amount Per Serving			
<b>Calories</b> 250		<b>Calories from Fat</b> 110	
		% Daily Value	
<b>Total Fat</b>	12g		18%
Saturated Fat	3g		15%
<b>Cholesterol</b>	30g		110%
<b>Sodium</b>	470mg		20%
<b>Total Carbohydrate</b>	31g		10%
Dietary Fiber 0g			
Sugars			5g
<b>Protein</b> 5g			
Vitamin A	4%	* Vitamin C	2%
Calcium	20%	* Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet.			



Because the food label does not list calcium in milligrams, the easiest way to tell if kids 9-18 are getting enough is by making sure the Daily Values for calcium add up to 130% each day.

Here is an example of how to get 1300 mg (130% DV) of calcium per day:

FOOD	Milligrams of CALCIUM	% Daily Value (DV) listed on the food label
1 (8 oz) glass milk	300 mg	30% DV
1 (8 oz) cup yogurt	400 mg	40% DV
1 (8 oz) glass milk	300 mg	30% DV
1/2 cup macaroni & cheese	200 mg	20% DV
1 cup broccoli	100 mg	10% DV
TOTAL Calcium:		TOTAL DV:
1300 mg		130% DV

Another way to figure out how much calcium your child is getting is to add a “zero” to the end of the Daily Value number (or multiply by 10). This will show you what the Daily Value equals in milligrams of calcium. For example, a serving of milk that has a Daily Value of **30%** has **300 mg** of calcium.

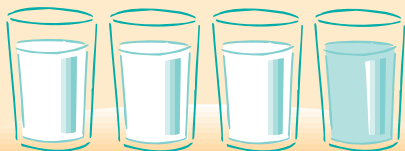
The food label can also help you choose between foods if you look to see which ones have the most calcium. A food with a Daily Value of 20% or more is high in calcium. A food with a Daily Value less than 5% is low in calcium. By looking at the labels, you can pick the foods that have the most calcium in them to help your child build strong bones.

# What Kind of Milk is Best?

Fat-free (skim) and low-fat (1%) milk and dairy products have no or little fat so it's easy for kids to get enough calcium without adding extra fat to their diets. However, babies under one year old should drink only breast milk or iron-fortified formula. Children ages one to two should

drink whole milk rather than reduced-fat varieties.\* Between ages two and five, parents should gradually transition children to reduced-fat, low-fat, or fat-free milk.

**Whole,  
Low-Fat, Fat-Free,  
AND Chocolate Milk**



**ALL have 300 mg of calcium per glass —**

**But they have different amounts of fat.**

8 ounces of whole milk contains 8 grams of fat; reduced-fat milk has 5 grams of fat; low-fat milk has 2.5 grams of fat; and fat-free milk has 0 fat.

*\* Source: American Academy of Pediatrics, Pediatric Nutrition Handbook, 1998*

## Can Everyone Drink Milk?

Lactose is the sugar found in milk and dairy products and can cause stomach discomfort in some people. A person with lactose intolerance has trouble digesting the sugar in dairy foods. Lactose intolerance is not common among

infants and children. Among adults, it tends to be more common in Asian, Hispanic, African-American, and Native American populations.

Many people with lactose intolerance can actually drink 8 ounces of milk each day without getting an upset stomach or abdominal pains. In addition, they can often eat yogurt or cheese without any problems, or have milk combined with other foods, such as cereal with milk. Also, lactose-free milk is available in stores, and there are pills and drops you can buy that make it easier to digest milk and dairy products.

Some people, however, are allergic to milk and dairy products and should avoid eating them. For those people who can't drink milk at all, calcium can come from foods like dark green, leafy vegetables such as kale, calcium supplements, or orange juice, tofu, and soy milk with calcium added. If you have more questions about lactose intolerance or milk allergies, talk to your pediatrician.





# Getting Enough Calcium

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Getting enough calcium is important for building strong bones and teeth and ensuring future health. Here are three things that parents can do to help kids get enough calcium:

## 1. Offer your child ...

healthy foods filled with calcium, such as low-fat or fat-free milk and dairy products, and dark green, leafy vegetables.

## 2. Keep milk and dairy products in the house...

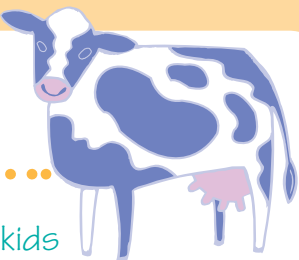
and put milk on the table during meals and snacks.

## 3. Drink milk yourself ...

and make it part of your whole family's diet. Kids make many food choices by watching their parents so show them milk and calcium are important your whole life long.



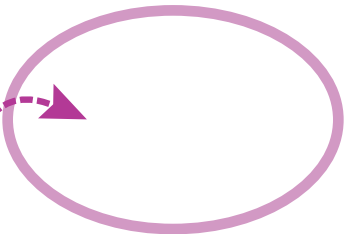
# Count Your Calcium!



Copy this chart and fill it out with your kids to help keep track of how much calcium they get each day.

Food	Calcium (in milligrams)	% Daily Value

TOTAL  
MILLIGRAMS  
OF CALCIUM  
TODAY





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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
National Institutes of Health  
National Institute of Child Health and Human Development  
NIH Publication No. 99-4521  
May 1999